



EDGE

CONTROLLER

DESIGNED TO EVOLVE & EXPAND WITH YOUR OPERATION

Introducing EDGE™ Control Systems

EDGE™ is a single platform that is versatile and intuitive allowing it to handle all control functions for your barn. The unique design makes EDGE the only controller on the market that can be configured to match your operation's specific requirements and is flexible enough to be adapted to new or existing barns. The management of ventilation and indoor environments, lighting, nutrition and weighing systems is made easier with EDGE.



More than a product, EDGE™ is the next generation of controller, a platform designed to evolve and expand with you and your operation for years to come.

Sun-North has over 30 years of experience in designing and providing animal housing systems that create the ideal stress free production and rearing environment, allowing your animals to reach their optimum genetic potential. Sun-North's controls can give you peace of mind knowing that they will sense sudden temperature swings, strong winds, heavy rains and then adjust automatically.

- Large, 15" colour touchscreen
- Easy navigation
- Real-time & site-wide status of entire operation
- Built-in self diagnostics
- Monitors electrical current to protect equipment and maintain performance
- Remote connectivity
- Control multiple barns from one EDGE control
- Rugged design performs in the toughest environments
- Easy access to manually control equipment
- LED temperature probe

Sun-North's experience enables us to discuss and advise you on the optimal system for your operation.

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Monitoring & Management

Typical equipment controlled and/or monitored by EDGE:

- Ventilation
- Lighting
- Indoor environments
- Outdoor environments
- Water
- Milk temperature



Information at a Glance



Navigation is easy with the large, 15" color touchscreen. Everything is right in front of you for quick, easy navigation. The buttons are large enough to be touched even when wearing gloves. Color-coded notifications give you real-time status of your entire operation. Site-wide conditions can also be monitored from the touchscreen.



Remote Connectivity

Plug in an Ethernet cable and you are ready to take control of the system from the comfort of your truck, office, couch, and anywhere in between. EDGE gives you the freedom to leave the farm while knowing you are only one touch or click away.

If a problem occurs and an alarm is triggered, you will be immediately notified via text message and/or e-mail, instead of finding out hours later or the next day, when it might be too late to correct the issue. You can then remotely connect via any web-enabled device – computer, tablet, smart phone – to see what is wrong, correct the problem or determine if you need to go to the site.



Permissions

Not only can you view and manage the system, sales representatives, service technicians and technical support can also be allowed to view and manage the system. This enables them to support you easier and quicker than ever before. Got a problem or question on the setting or equipment, they may be able to fix or at least gather information from the EDGE from wherever they may be at the time.

Allow access to multiple users, you can control the degree of accessibility of others from only seeing what's happening, all the way to full access allowing them to make changes remotely.

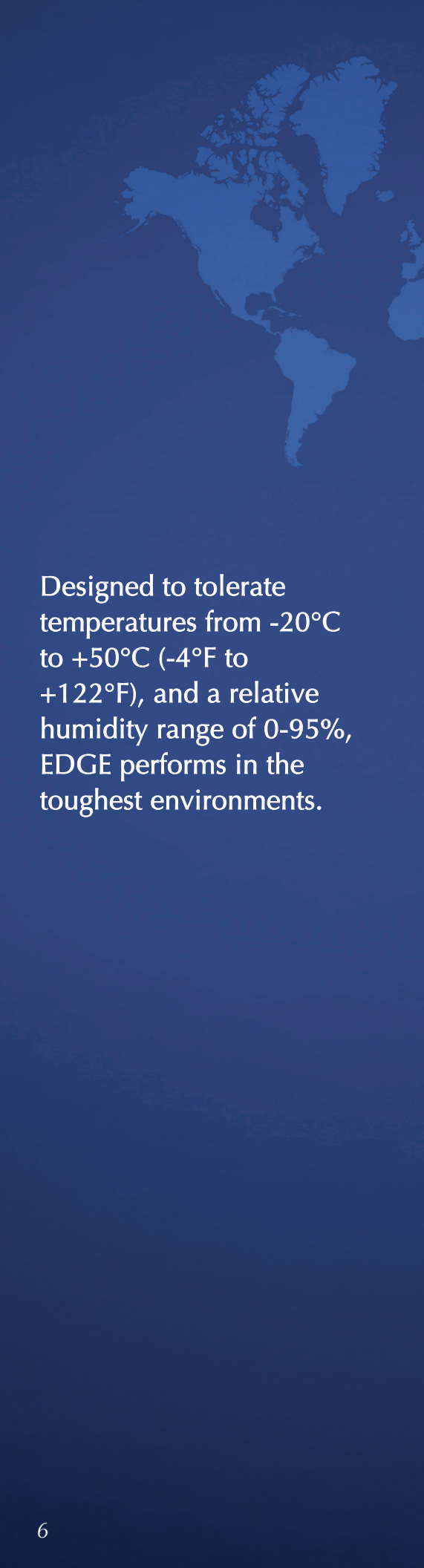
Multi-Room / Multi-Facility Control

With EDGE, you have the power to control multiple barns from a single controller using one interface. Consider a typical dairy farm, lets say you have a main freestall with parlour and holding area, drycow and heifer barn and a calf barn. Historically, each barn would require at least one controller, maybe four or more. EDGE reduces management complexity while allowing oversight and changes to be made from a single point.

Optional remote display boxes give producers the ability to view and modify control settings from any barn, regardless of what barn the main controller is located in.

You can also add an additional controller to act as a backup, for additional security and reliability. Competing systems may not offer this redundancy; if a controller fails, even with a backup system, there can be a loss of performance and communication. With EDGE, if a controller fails, you still have 100% functionality and communication. No single failure can affect the system.





Designed to tolerate temperatures from -20°C to +50°C (-4°F to +122°F), and a relative humidity range of 0-95%, EDGE performs in the toughest environments.

Current Sensors

Each variable output and relay is equipped with a current sensor, which allows the system to monitor electrical current. By monitoring the power usage, the system will check to see if a configured device, such as a fan, is drawing too much current due to a motor or wiring problem, or too little current because the fan is not running or has been disconnected.

Self Diagnostics

Should anything go wrong, the built-in self-diagnostics make troubleshooting easy. Before you go flipping through a manual or calling tech support, self-diagnostics can identify a number of issues. The system can tell you when a sensor is disconnected or incorrectly wired, if a piece of equipment is drawing too much or too little current, or if internet connectivity is down. It will pinpoint exactly where the problem is and what you need to do to fix it.

Full Redundancy

Operate multiple barns with a single, main controller. Redundant power supplies and communication paths provide uninterrupted operation in the event of a power supply failure. For additional safety, add a second main controller to maintain operation should the primary main controller have an issue.

Backup Mode

Should the main controller fail due to lightning, faulty wiring, etc., or if both controllers in a redundant system fail, EDGE has a second level of safety built in to the system. In Backup Mode, the individual cards that are plugged into the expansion boxes in the system actually have intelligent processors built into them. When they are unable to communicate with the main controller(s), they take over and act as a mini stand-alone controller, continuing to read temperature probes and operate equipment appropriately. This allows the system to operate indefinitely without a main controller, which adds an additional layer of security and operational capacity on top of a redundant main controller.

Fail Safe Mode

In the rare event that a main controller malfunctions, and the even rarer event of a complete power loss to the controllers, EDGE has built in a third level of safety and security: fail safe relays. These relays have special contacts that allow “de-energize to trip” functionality, which means that in a total power loss, the system can drop curtains to ensure fresh air

is available to the animals. Or in another scenario, if the controller loses power but power is still available to the barn, the fail safe relays can activate fans, keeping air moving.



Fault Correction

Have peace of mind that your operation is always protected. EDGE isn't just protective, it's proactive. Traditional controllers will sound an alarm if a problem with equipment is detected. Here's the difference with EDGE: alarms will still sound, but where possible, corrective action will also be automatically initiated.

For example, if EDGE detects a fan that is not operating properly, it will select a comparable fan to use until the original fan can be fixed. Because EDGE knows each piece of equipment in a facility, its capabilities (like CFM and its location, it can choose a backup to take over. EDGE not only identifies the issue, it also recovers from the problem until you determine a long-term solution.

Easy to Setup, Easy to Operate

- Wireless setup
- Built in configuration wizard makes for easy setup & monitoring
- Multi-language support - switching between languages is as simple as using a button on the main screen.
- All Sun-North products are backed by our expansive network of dealers and support teams.

EDGE has the appropriate certifications for the regions in which it is sold so it can be deployed in all markets. For North America, EDGE is UL/CSA certified, and in the European Union, it is CE-approved.





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